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**UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant: Pontbriand  
Serial No.: 09/493,530  
Filed: January 28, 2000  
Group Art Unit: 1772  
Examiner: S. Nolan  
Title: PLASTIC POWDER FILLED EPOXY PAINT FOR TUBING

Mail Stop Appeal Brief  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Dear Sir:

In response to the Notification of Non-Compliance mailed June 17, 2004, Appellant is hereby resubmitting its Appeal Brief. Appellant filed a Notice of Appeal on February 17, 2004 and filed an Appeal Brief on April 19, 2004. Appellant has already paid the Appeal Brief fee with the Appeal Brief filed October 27, 2001. However, the Commissioner is authorized to charge or credit deposit account no 50-1482 in the name of Carlson, Gaskey & Olds, P.C. for any additional fees or credits.

**REAL PARTY IN INTEREST**

The real party in interest is Cooper Technology Services, LLC, the assignee of the entire right and interest in this Application.

**RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

## STATUS OF CLAIMS

Claims 21-28 and 31-36 stand finally rejected under 103(a). Claims 29, 30, 37 and 38 have been allowed.

## STATUS OF AMENDMENTS

All amendments have been entered.

## SUMMARY OF THE INVENTION

As shown in Figure 2, this invention relates to a tubing 32 and a method of coating a tubing 32 including the steps of applying a substrate 34 to the tubing 32, applying an epoxy coating 36 containing epoxy paint and plastic particles 38 onto an outer surface of the substrate 34, and curing the coating 36 on the metal tubing 32. These features are set forth in Claims 21 and 31 (page 3, lines 16-25).

Claim 22 depends on claim 21 and adds that the epoxy coating 36 is applied to the tubing 32 in a paint bath (page 3, lines 8-9). Claim 26 depends on claim 21 and adds that the epoxy coating 36 includes about 20% by weight of the plastic particles 38 (page 3, line 12). Claims 27 and 35 depend on claims 21 and 31, respectively, and add that the substrate 34 is electroplated zinc. Claims 28 and 36 depend on claims 21 and 31, respectively, and add that the substrate 34 is a zinc based alloy (page 3, lines 18-19).

## ISSUE

Are Claims 21-28 and 31-36 properly rejected under 35 U.S.C. 103(a) based on Hsich in view of the Japanese Reference and the Crea Nova publication?

## GROUPINGS OF CLAIMS

- A. Claims 21, 23-25 and 31-34 stand or fall together.
- B. Claim 22 stands or falls alone.

- C. Claim 26 stands or falls alone.
- D. Claims 27 and 35 stand or fall together.
- E. Claims 28 and 36 stand or fall together

## **PATENTABILITY ARGUMENTS**

### **A. The rejection of Claims 21, 23-25 and 31-34 under 35 U.S.C. 103(a) is improper.**

The Examiner finally rejected Claims 21, 23-25 and 31-34 based on Hsich (U.S. Patent No. 5,972,450) in view of JP 06329958A (the Japanese reference) and the Crea Nova publication. The Examiner contends it would be obvious to employ the polyamide particles of Crea Nova in the epoxy film of the Japanese reference on the metal tube 10 of Hsich, and therefore Appellant's claims are obvious. Appellant respectfully disagrees.

The present invention is patentable and strikingly different from the combination of Hsich, the Japanese reference, and the Crea Nova publication. As described by Claim 21, the present invention provides a method of coating a metal tubing including the steps of:

- “(1) applying a substrate to said metal tubing;
- (2) applying an epoxy coating containing epoxy paint and plastic particles onto an outer surface of said substrate; and
- (3) curing said coating on said metal tubing.”

[See Claim 21]. Claims 21-28 and 31-36 of the present invention all share this same or similar feature. [See Claims 21-28 and 31-36].

Claims 21-28 and 31-36 are not obvious in view of the combination of Hsich, the Japanese reference, and the Crea Nova publication. Hsich discloses a metal tube 10 having an inner layer 12 of a first polymeric material that provides chemical resistance and prevents corrosion (column 3, lines 33 to 40). It is disclosed that the inner layer 12 can be made of epoxy (column 3, line 51). An

outer layer 14 of a second polymeric material extruded over and weakly bonded to the inner layer 12 absorbs impact energy and provides abrasion resistance (column 2, lines 38-55 and column 3, lines 54 to 59). The Japanese reference teaches a film including epoxy resin and polyamide resin powder. The Crea Nova document teaches a lacquer including a polyamide 12 powder.

The claimed invention is not obvious in view of the references. There is no suggestion or motivation to provide polyamide particles in the inner layer 12 of Hsich because of the Japanese reference or the Crea Nova publication. The polyamide powder particles of the Crea Nova publication are employed to provide a homogeneous structure surface, low gloss, reduced dirt pickup, and excellent abrasion resistance. However, there is no benefit to providing these properties in the inner layer 12 of Hsich because the inner layer 12 is covered by the outer layer 14. Even if the inner layer 12 of Hsich included polyamide particles, the disclosed functions of the polyamide particles would be ruined because the inner layer 12 is covered by the outer layer 14. That is, because the outer layer 14 covers the inner layer 12, there would be no reason or benefit to providing a homogeneous structure surface, low gloss, reduced dirt pickup and abrasion resistance in the inner layer 12. Therefore, there is no reason or motivation to provide polyamide particles in the inner layer 12 of Hsich. The claimed invention is not obvious, and Appellant respectfully requests that the rejection be withdrawn.

The claimed invention is also not obvious because the Crea Nova publication teaches a lacquer, not an epoxy resin. Hsich and the Japanese reference relate to a tubing having an inner layer 12 of epoxy. The Crea Nova publication discloses a lacquer. Epoxy resins are very different from lacquers and cannot be substituted for each other. One skilled in the art would not consider the lacquer of the Crea Nova publication when modifying the epoxy inner layer 12 of Hsich. There is no suggestion to combine Hsich, the Japanese reference and Crea Nova, and the Examiner's rejection is improper.

**B. The rejection of Claim 22 under 35 U.S.C. 103(a) is improper.**

The rejection of claim 22 is separately contested. Claim 22 recites that the epoxy coating is applied to the tubing in a paint bath. However, none of the references alone or in combination

teach, suggest or disclose a coating applied in a paint bath. The references are silent as to the method of applying the coating. Therefore, the combination of the references does not teach, suggest or disclose the claimed invention. Appellant's claims are not obvious, and Appellant respectfully requests that the rejection be withdrawn.

**C. The rejection of Claim 26 under 35 U.S.C. 103(a) is improper.**

The rejection of claim 26 is separately contested. Claim 26 recites that the epoxy coating includes about 20% by weight of the plastic particles. However, none of the references teach, suggest or disclose any epoxy coating includes about 20% by weight of plastic particles. Therefore, the combination of these references do not teach, suggest or disclose the claimed invention. Appellant's claims are not obvious, and Appellant respectfully requests that the rejection be withdrawn.

**D. The rejection of Claims 27 and 35 under 35 U.S.C. 103(a) is improper.**

The rejection of claims 27 and 35 is separately contested. The Examiner states on page 4 of the Office Action claims 27 and 35 are obvious because it is desirable to coat a metal tubing with zinc to provide additional corrosion resistance. However, the Examiner supplied no evidence of this assertion. Appellant cannot respond without this evidence and has asked that the holding be dropped or the evidence be supplied (MPEP 2144.03). The use of electroplated zinc is not a matter of engineering choice. None of the references alone teach, suggest or disclose a substrate of electroplated zinc. Therefore, the combination of these references does not teach, suggest or disclose the claimed invention. Appellant's claims are not obvious, and Appellant respectfully requests that the rejection be withdrawn.

**E. The rejection of Claims 28 and 36 under 35 U.S.C. 103(a) is improper.**

The rejection of claims 28 and 36 is separately contested. The Examiner states on page 4 of the Office Action that it is desirable to form the substrate of a zinc based alloy. However, the Examiner supplied no evidence of this assertion. Appellant cannot respond without this evidence

and has asked that the holding be dropped or the evidence be supplied (MPEP 2144.03). The use of a zinc based alloy is not a matter of engineering choice. None of the references alone teach, suggest or disclose a substrate of electroplated zinc. Therefore, the combination of these references does not teach, suggest or disclose the claimed invention. Appellant's claims are not obvious, and Appellant respectfully requests that the rejection be withdrawn.

### CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant respectfully requests such an action.

Respectfully submitted,

**CARLSON, GASKEY & OLDS, P.C.**



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Dated: June 22, 2004

### CERTIFICATE OF MAIL

I hereby certify that the enclosed Appeal Brief (in triplicate) is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 22, 2004.



Amy M. Spaulding

### **CLAIM APPENDIX**

21. A method of coating a metal tubing comprising the steps of:
  - (1) applying a substrate to said metal tubing;
  - (2) applying an epoxy coating containing epoxy paint and plastic particles onto an outer surface of said substrate; and
  - (3) curing said coating on said metal tubing.
22. The method as set forth in Claim 21, wherein said coating is applied to said tubing in a paint bath.
23. The method as recited in Claim 21, wherein said plastic particles are nylon.
24. The method as set forth in Claim 21, wherein said plastic particles have an average size of less than 50 micron.
25. The method as set forth in Claim 21, wherein said plastic particles have an average size of less than 25 micron.
26. The method as set forth in Claim 1, wherein said coating includes about 20% by weight of said plastic particles.
27. The method as set forth in Claim 1, wherein said substrate is electroplated zinc.
28. The method as set forth in Claim 1, wherein said substrate is zinc based alloy.

31. A tube comprising:
  - an underlying metal tubing;
  - an intermediate substrate layer; and
  - an outer epoxy coating containing plastic particles mixed into an epoxy paint, wherein said intermediate substrate layer is between said metal tubing and said coating.
32. The tube as set forth in Claim 31, wherein said plastic particles have an average particle size of less than 50 micron.
33. The tube as set forth in Claim 31, wherein said plastic particles have an average size of less than 25 micron.
34. The tube as set forth in Claim 31, wherein said plastic particles are formed of a nylon.
35. The tube as set forth in Claim 31, wherein said intermediate substrate layer is electroplated zinc.
36. The tube as set forth in Claim 31, wherein said intermediate substrate layer is zinc based alloy.